

REMARKS

This is in response to the Official Action of June 2, 2005. A terminal disclaimer and request for a one-month extension of time together with the fee are enclosed.

Reconsideration of the holding that claims 11-29 are directed to a different invention from claims 1-10 is respectfully requested.

It is believed that claim 1 was directed to include a plurality of compartments. The introduction of the claim was a method of processing particles "classified into separate size ranges" with each size range being in a "separate impactor compartment". That means that there had to be more than one compactor compartment, because each size range of the processing was in a separate compartment. While in line 5 of claim 1, the word "compartment" was singular, in lines 6 and 7, it was plural.

It is also plural in line 2 and in each of claims 6-9. The original usage in line 5 was a syntax error.

Further in regard to the rejection under 35 U.S.C. § 112 the claims relate to process steps, not to a particular impactor construction. A compartment manifold holding a plurality of compartments, which comes from a impactor classifying particles into separate size ranges, is moved to a service manifold for processing the particles in the compartments on while on the service manifold. The process involves adding a solution for dissolving material into the compartments and then moving the compartment manifold and the service manifold for enhancing dissolving the classified particles. The service manifold clearly overlies the compartments to enclose the materials in the compartments.

The Office Action indicated that the claim recited the step of adding a solution for dissolving materials in the compartments, and it was "unclear where the solution is added". This is, again, a method claim where the solution is added to the

compartments, and exactly where it is introduced is not, it is respectfully submitted, important or even critical to the method of having the compartment manifold supported on a service manifold so the two manifolds form a unit that is moved to help dissolve the particles of interest. The service manifold relationship to the compartment manifold is that the service manifold overlies the compartments on the compartment manifold, and the two manifolds are moved. It is respectfully submitted that was defined clearly in the claim.

The simultaneous moving of the compartment manifold and service manifold as a unit under power is a step that does not involve the impactor at all. In other words, the common compartment manifold is moved from the impactor to a service manifold, and that was specified in claim 1.

In regard to singular and plural compartments, that is discussed above, and it is respectfully submitted that if when each size range of particles is recited as being in a separate impactor compartment, that means that where there are separate size ranges specified, as in original claim 1, and there is a separate compartment for each size range, there are a number of compartments.

Claim 1 is not directed to a method of classifying particles, which is done in an impactor, but it is a method of processing the particles that have already been classified. It is believed that the wording "a method of processing particles classified into separate size ranges" is appropriate for this claim.

It is respectfully submitted that original claim 1 did have the steps that would provide for dissolving particles in each of the compartments by adding the solution for dissolving material in the compartments and then moving the compartment manifold and service manifold as a unit to agitate the liquid and enhance the dissolution of the materials.

The Applicant has amended claim 1 to clarify some of the wording, but again, it is respectfully submitted that this claim originally included a plurality of compartments in the compartment manifold because each of the separate size ranges of classified particles was in a separate compartment.

It is respectfully requested that the rejection under 35 U.S.C. § 112 be reconsidered in view of the amendments to the claims.

In regard to the double patenting rejection, the Applicant is including a Terminal Disclaimer of the prior patent.

Claims 1-10 were rejected two ways, (anticipation and obviouness) both based upon the Call et al. Patent No. 6,267,016.

It is respectfully submitted that the Call et al. patent is a single impactor chamber that does not classify the particles into separate compartments, nor is there a manifold that supports separate compartments. which can be moved from the impactor to a service manifold for processing individual size ranges of particles.

Further, there is no provision for classifying the particles that are introduced into the Call et al. impactor into separate size ranges. While the introductory portions of the patent that the Examiner pointed to indicated it was desirable to analyze the particles and to classify them, the Call et al. patent does not disclose or teach classifying particles in the input fluid stream into separate size ranges. While the size of the particles in the input stream above a particular cut-off point can be collected, the rest of the particles are discharged. The collected particles are collected in the jar that is to provide the wash water. There is only one impactor compartment in the Call et al. patent, and there is no teaching of having a plurality of separate compartments or even one compartment supported on a compartment manifold and then moved to a service

manifold where liquid can be injected into each of the compartments to dissolve the particles.

It is true that within the single compartment shown in each of the embodiments to the Call et al. patent, there are surfaces on which particles adhere or collect. In Call et al., the impactor itself has a source liquid that is used to wash the internal surfaces and the liquid is collected in the same reservoir that is used for as a source of the liquid introduced into the impactor. Also, that jar has the exhaust for the fluid stream passing through the impactor.

In other words, Call et al. has a circulation system where a liquid in a bottle is pumped out of the bottle, poured over surfaces to flush particles off the surfaces, and then the liquid and particles are collected in the same bottle. That same liquid with the flushed particles may also be re-circulated through the impactor, it appears.

There is apparently a continuous circulation of liquid in Call et al., and, as set out in column 5, lines 40-47 of the Call et al. patent, the liquid is injected into the air or gaseous fluid entering the cavity, which is the inlet to the impactor, and the analogy given is that this is like a carburetor that mixes gasoline with air entering a cylinder in an automotive engine. The liquid actually mixes with the incoming air. There certainly is no teaching of having compartments that collect classified particles that have been classified into separate size ranges, and supporting the compartments on a manifold and removing the compartment manifold and supporting it on a separate service manifold before any liquid is introduced into the compartments. In other words, the teaching in the Call et al. patent is that you run a liquid through the impactor itself and rely on it to be collected in a bottle that also supplies the liquid that you are running through the impactor.

The general language about analyzation of particles in the Call et al. patent is for all of the particles in the fluid that is being introduced, but not individual compartments that have been supported in a manifold, and then that manifold and supported compartment in turn supported on a service manifold for agitation after adding a solvent.

In the Call et al. patent, the single impactor unit is merely flushed with water or other liquids from a reservoir that also collects the liquid existing in the impactor. It appears that this liquid carrying particles is re-pumped through the impactor.

In Call et al. the only analysis possible and the only analysis disclosed is a qualitative determination of detecting or identifying the particles. Call et al. does not teach apparatus or methods for quantifying the amount of liquid used and in turn quantifying the amount of an active ingredient in the particles collected in each size range. This is made possible in the claimed method by using the service manifold that overlies each compartment so a known amount of liquid can be added to each compartment. Using known analysis the amount of an active ingredient in the particles collected in each size range can be quantified.

Certainly, impactors have been washed and dried, but here the claimed method is specific to the adaptation for a multi-compartment impactor where the individual compartments that hold the classified particles are supported in a common manifold, placed onto a service manifold and then, after liquid has been added, agitated for dissolving.

It is respectfully believed that the claims fulfill the requirements of § 112.

In regard to the rejection under 35 U.S.C. § 102, the differences outlined above clearly show the Call et al. patent does not have the claim elements of claim 1 (or claim 11).

Further, there is no teaching in Call et al. that renders claim 1 or (claim 11) obvious under 35 U.S.C. § 103.

Specifically, the Call et al. patent does not disclose, or under 35 U.S.C. § 103 suggest, a "method of processing particles classified into separate size ranges in an impactor" with each size range being in "a plurality of separate impactor compartments supported in a common compartment manifold in the impactor".

The steps that are also totally missing in the Call et al. patent, with no suggestion of any corresponding function, and thus, no teaching to render claim 1 obvious, includes "removing the compartment manifold and supported separate compartments from the impactor to a service manifold overlying all of the compartments". Further missing from Call et al. is any suggestion of securing the compartment manifold and the service manifold together, adding a solution, and then moving the compartment manifold and service manifold as a unit to enhance a dissolution of particles. There is no teaching of this process in the Call et al. patent, it is respectfully submitted. When Call et al. removes the water supply/collection bottle, the contents are said to be analyzed, but where or how is left up to the user. Also, the only analysis available is to detect and identify the particles.

To reiterate, the Call et al. patent teaches flushing an impactor by actually mixing the incoming air and the liquid together much like a carburetor and flushing the surfaces of the impactor, which impactor includes impeller vanes. There is no separate size classification in the impactor of Call et al. all of the particles above one size are separated, without any separate size classification. The only separation is above a single cutoff point.

Claim 1 has thus been amended to clearly define over the Call et al. patent, it is respectfully submitted, and favorable action is requested.

Claim 2 includes the step of removing a liquid sample from the compartments in the compartment manifold after moving the manifolds as a unit. No teaching of such a step is present in Call et al. Call et al. just says the "residue" is removed from the bottle for analysis or other tests.

Claim 3 includes the separate valve inlet to each compartment that is used for drawing the sample into a passageway connected to the valve.

Claim 4 provides for the mechanized moving of the compartment manifold onto an impactor for an impaction cycle of particles provided to the impactor.

In claim 5, the step of moving the compartment manifold and service manifold is more particularly defined by placing the two manifolds as a unit onto a support that is pivotable about an axis and then moving the manifolds about that axis.

Claim 6 has been amended to clarify the use of "wash" liquid, and putting the wash liquid into the compartments through the service manifold.

Claims 7, 8, 9 and 10 add features to the method for cleaning and drying of the service manifold and also to dry the surfaces of the compartments.

It is respectfully believed that claim 11 should be considered as part of the invention of claims 1-10, and it includes the features of claims 1-10, plus additional details on the impactor and impactor cups, but includes the same process wherein the particles are classified into separate impactor cups, and then the manifold from the impactor supporting these cups is removed to a service manifold. Then, a solvent is introduced and simultaneously the service manifold and impactor cup manifold are

moved for agitating the solvent to aid in dissolving particles in the impactor cups.

Thus, claim 11 is allowable for the same reasons as claim 1, and embodies the same inventive concept. Claim 11 and its dependent claims 12-29 should be allowed with claims 1-10.

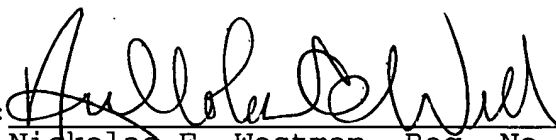
Favorable action is respectfully requested.

A petition for a one month extension of time is enclosed, together with the fee. +

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 
Nickolas E. Westman, Reg. No. 20,147
Suite 1400 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

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